

REPLY UNDER 37 C.F.R. § 1.111  
U.S. Application No. 10/589,199  
Attorney Docket No. 102063.56904US  
May 13, 2010

**REMARKS**

**I. Status of the Application**

By the present Reply, the Applicants are amending claim 1. No new matter is added. Claims 1-20 are all the claims currently pending in the application. Claims 1-12 have been rejected. Claims 13-20 have been withdrawn. The present Reply addresses each point of rejection raised in the Office Action. Favorable reconsideration is respectfully requested.

**II. Claim Rejections Under 35 U.S.C. §§ 102(b) and 103(a)**

Claims 1 and 2 stand rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by, or, in the alternative, under 35 U.S.C. § 103(a) as allegedly being unpatentable over EP 0 456 931 to Horii et al. (hereinafter “Horii”). Claims 1 and 2 also stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Horii in view of U.S. Patent No. 2,856,234 to McNair et al. (hereinafter “McNair”). Claims 3-5 and 10-12 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Horii and McNair in view of U.S. Patent No. 6,739,574 to Simon. Claims 6-9 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Horii, McNair, and Simon in view of U.S. Patent No. 5,433,365 to Davies.

By the foregoing amendment, claim 1 has been revised to recite that “the flow cross section of the drive-flow discharge slit is variably adjustable during operation of the Coanda flow amplifier” (emphasis added). The Applicants

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respectfully submit that none of the cited references, alone or in combination, teaches or suggests the quoted claim feature.

Horii discloses a Coanda spiral flow device. As shown in FIG. 2 of Horii, the Coanda spiral flow device includes a first unit A, a second unit B, and an outer peripheral tube unit C that partially covers the first unit A and the second unit B and couples them together (page 2, right column, lines 34-39).<sup>1</sup> The first unit A has an introducing port 1, and the second unit B has a discharge outlet 4 (page 2, right column, lines 40-45). The outer peripheral tube unit C covers an annular groove 8 in the second unit B to form a ventilation distribution chamber 10 that communicates with a compressed gas inlet port 11 (page 3, left column, lines 18-22). The first unit A, the second unit B, and the outer peripheral tube unit C are connected by threaded fastenings at coupling flanges 3 and 9 (page 3, left column, lines 23-26). By adjusting the threaded fastenings, the clearance of the Coanda slit 5 through which compressed gas is fed can be set to a specified gap (page 3, left column, lines 26-29).

However, Horii does not teach or suggest that “the flow cross section of the drive-flow discharge slit is variably adjustable *during operation of the Coanda flow amplifier,*” as recited in claim 1 (emphasis added). On the contrary, the first unit A, the second unit B, and the outer peripheral tube unit C of the Coanda spiral flow unit of Horii are designed *in advance* to form a specific Coanda slit 5 (page 3, left column, lines 31-34). For example, the Coanda spiral flow unit may

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<sup>1</sup> The Applicants note that all citations to Horii are made to EP 0 456 931 A1.

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be designed such that the Coanda slit 5 has a clearance of 0.18 mm (page 3, right column, lines 5-13).

It is important to note in this regard that an object of Horii is to avoid adjusting the Coanda slit 5 during assembly (page 3, left column, lines 34-37). This improves the convenience, process accuracy, and efficiency of the Coanda spiral flow unit (page 3, left column, lines 37-40). In particular, an object of Horii is to ensure the accuracy of the clearance of the Coanda slit 5 (page 3, right column, lines 12-13). Therefore, the Applicants submit that Horii teaches away from a Coanda slit 5 with a clearance that is variably adjustable during operation of the Coanda spiral flow unit. Instead, the Coanda spiral flow unit of Horii is designed to maintain the specific clearance of the Coanda slit 5 during its operation.

McNair, on the other hand, discloses a liquid proportioning device. As shown in FIG. 3 of McNair, the proportioning is effected by the relative dimensions of the cross sectional area of the orifice 32 at the tapered inlet end 25 of the metering jet 22, and the cross sectional area of the venturi throat 11 (col. 8, lines 1-4). The proportioning may be varied by altering the ratio of these cross sectional areas (col. 8, lines 16-19). This can be accomplished by replacing the metering jet 22 with a different metering jet having an orifice with a different cross sectional area (col. 8, lines 19-25). The end 28 of the metering jet 22 is provided with a slit 28' that can be used with a screwdriver to remove the metering jet 22 and then substitute a different metering jet (col. 8, lines 25-29).

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Therefore, the cross sectional area of the orifice 32 of the metering jet 22 cannot be adjusted during operation of the liquid proportioning device, because the metering jet 22 must be removed and replaced to change the cross sectional area. Accordingly, McNair does not teach or suggest a modification of Horii that would replicate the claimed invention.

In addition, the Applicants submit that Simon and Davies also fail to disclose teachings that are missing in Horii and McNair. For example, Simon and Davies do not disclose that “the flow cross section of the drive-flow discharge slit is variably adjustable during operation of the Coanda flow amplifier,” and are not cited as allegedly disclosing this feature.

Accordingly, the Applicants respectfully submit that claim 1 is patentable over Horii, McNair, Simon, and Davies at least by virtue of the aforementioned differences, as well as its additionally recited features. Further, claims 2-12 are patentable over Horii, McNair, Simon, and Davies at least by virtue of their dependencies on claim 1, as well as their additionally recited features.

### **III. Conclusion**

If there are any questions regarding this Reply or the application in general, a telephone call to the undersigned would be appreciated since this should expedite the prosecution of the application for all concerned.

If necessary to effect a timely response, this paper should be considered as a petition for an Extension of Time sufficient to effect a timely response, and

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Respectfully submitted,



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